

## II. AMENDMENT

### A. Specification

#### 1. Amendment to Title

Please amend the title of the application as follows:

~~“AN APPARATUS AND METHOD OF MONITORING BRAKING SYSTEM~~  
PRESSURE”

#### 2. Amendment to Specification Paragraphs

Please amend the following paragraphs of the specification as indicated:

[01] This invention relates generally to the field of brakes and, more particularly, to an apparatus and method related to continually monitoring braking system pressure during operation of a vehicle.

[02] A work machine such as a wheel loader, motor grader, scraper, or any machine ~~that is~~ with having a hydraulic braking system requires pressurized fluid to either actuate or disengage the brakes. In order to have proper and instantaneous braking force during a braking event, the hydraulic braking system may utilize at least one accumulator to provide fluid pressure to the brakes until such time as the pump ~~has time to~~ can satisfy the pressure needs of the event.

[03] The accumulator is generally divided into two chambers. The first chamber is open to system fluid and the consequent fluid pressures in the braking system. The second chamber is in a cooperating arrangement with the first chamber, and, in a gas type accumulator, is charged with a nitrogen gas to a pre-determined pressure, hereinafter known as the

accumulator charge pressure. Upon starting the work machine, the pump supplies fluid to the braking system. The first accumulator chamber ~~open to the system fluid~~ fills with fluid. Once full, pressure begins to build against the nitrogen charged chamber, consequently compressing the already precharged nitrogen gas. After the pressure in the system and the accumulator has built to a maximum pre-determined pressure, the pressure is confined in the system until the pressure is needed in a braking event.

[05] It is not uncommon for the accumulator to be replaced when a low-pressure warning is given, regardless if of whether the accumulator is the problem. To avoid unnecessarily replacing accumulators there is a need for a reliable and easy way to detect and monitor accumulator charge pressures, along with other conditions set forth above. U.S. Patent No. 3,662,333, issued May 9, 1972, to Donald W. Howard discloses a monitoring system that monitors the accumulator charge pressure during a braking event. However the '333 invention is not a reliable way to monitor pressures because the change in accumulator pressure during a braking event is very abrupt. In addition, pressure decay can vary with the service state of the brakes, adding uncertainty.

3. Deletion of Specification Section

Please delete the section of the specification entitled "Summary of the Invention," *i.e.* paragraphs 7 and 8 and the section title.